DOCUMENT RESUME

ED 104 201 HE 006 316

AUTHOR Uhl, Norman P.
TITLE Consensus and the Delphi Process.
PUB DATE Apr 75
NOTE 7p.; Paper presented at the Annual Meeting of the American Educational Research Association (Washington, D.C., April 1975)

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS Educational Objectives; *Educational Research; *Evaluation; *Evaluation Methods; *Higher Education; *Measurement Techniques; Questionnaires; Research Criteria; Teacher Attitudes
IDENTIFIERS *Delphi Technique

ABSTRACT

The Delphi technique is being used by more institutions of higher education as a tool to obtain consensus. A few of the areas in which it has been employed are identifying educational goals and objectives, curriculum and campus planning, studies of cost-effectiveness and cost-benefit analysis, evaluation procedures, and studies of resource allocation. While most Delphi studies obtain convergence of opinion after two or more rounds, none of the studies investigated the permanency of the opinion convergence. To investigate this question, 26 faculty who had participated in an earlier Delphi study of goals, were given the identical questionnaire one year later. This questionnaire asked their perceptions of the importance given to different goals by their institution as well as what degree of importance they think should be attached to each goal. In both analyses it was found that ratings of the second questionnaire were similar to the initial Delphi questionnaire. In addition, there was a significant interaction between these different scores and the goal areas. While this study does not provide any definite answer to the original question of the permanency or response changes as a result of the Delphi technique, it does indicate that this is likely to be a fertile area for additional research. (Author/PG)

ED104201

CONSENSUS AND THE DELPHI PROCESS

Norman P. Uhl

North Carolina Central University

Durham, North Carolina

U S DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRO
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIG
ATING IT. POINTS OF VIEW OR OPIN
STATED DO NOT NECESSARILY REPRE
SENT OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

Presented at the Annual Meeting
of the American Educational Research Association
April 1975, Washington, D.C.

HE 006 310

Consensus and the Delphi Process

Norman P. Uhl
North Carolina Central University

How permanent are response changes as a result of employing the Delphi technique? This question led to the more specific question of this study: If faculty who had participated in a Delphi study of their institution's goals responded to the same goals instrument one year later, would their responses be closer to the first or last round? Responses to the questionnaire given one year later minus responses to the initial Delphi questionnaire were compared with responses to the questionnaire given one year later minus responses to the final Delphi questionnaire. With very few exceptions, it was found that the latest responses were significantly closer ($p<.05$) to the initial Delphi responses.

As indicated in an article by Judd in College and University Business (1972), the Delphi technique is being used by more and more institutions of higher education as a tool to obtain consensus. A few of the areas in which it has been employed to encourage consensus are identifying college, universitywide, and statewide educational goals and objectives; curriculm and campus planning; studies of cost effectiveness and cost-benefit analysis; rating scales and other evaluation procedures; educational goals and objectives for the future; and studies of resource allocation.

While most of the Delphi studies obtained convergence of opinion after two or more rounds, none of the above studies investigates the permanency of this opinion convergence. When consensus is achieved, does it represent a real shift in attitude or perception on the part of the individuals who changed their responses or are the changes only of a temporary nature?

Method

To investigate this question, twenty-six faculty who had participated in a Delphi study of goals conducted by the author (Uhl, 1971) were given the identical questionnaire one year later. This questionnaire asks for

their present perceptions of the degree of importance given to different goals by their institution as well as what degree of importance they think should be attached to each goal. Thus both perceptions and attitudes are assessed. In the original study, participants converged in most goal areas from rather diverse opinions on the first round to general agreement on the third round. The question of interest here is whether their responses to the first or last round of the Delphi will be closest to the responses one year later. If the responses are closer to the first round, it would provide support for the argument that the Delphi process (as used in this goals study) does not have a lasting effect, whereas the opposite results would provide support to the hypothesis that a real shift in attitude and/or perception does occur.

Each participant's response to the 110 items in the questionnaire given one year later were compared with that individual's responses to the 110 items on the initial questionnaire and on the final questionnaire. Difference scores were calculated and compared (responses to the questionnaire given one year later minus responses to the initial Delphi questionnaire were compared with responses to the questionnaire given one year later minus responses to the final Delphi questionnaire). Since the items of the questionnaire were divided into 18 goal areas, it was possible to obtain difference scores per goal area by summing the appropriate item difference scores. The statistical analyses compared the two difference scores for the 18 goal areas. This involved two separate analyses (using Linquist's treatment by treatment by subjects design): one used the difference scores from ratings of present importance while the other used difference scores obtained from ratings of preferred importance.

Results

In both analyses it was found that ratings of importance obtained one year after the Delphi study had been completed were more similar to the ratings given on the initial rather than the final Delphi questionnaire. (The two difference scores were significantly different at the .05 level.) In addition there was a significant interaction between these difference scores and the goal areas. Upon examination of the cell means, it was found that this interaction was caused by a few goal areas (three of the 18 goal areas in the present importance analysis - Personal Development, Vocational Preparation, and Research - and four of the 18 in the preferred importance analysis - Personal Development, Research, Social Conscience, and Esprit and Quality of Life) for which the responses to the questionnaire given one year later were more similar to those responses to the final than the initial questionnaire.

Discussion

The content of the few goal areas which were exceptions were reviewed but did not offer an explanation for their differing results. In general, the results provide support to the hypothesis that, in this goals study, the changes in opinion as a result of the Delphi technique were only of a temporary nature. However, before these findings can be generalized, one must consider the limitations of the present study.

1. The subject of the study were present and preferred importance ratings of goals. It is possible that similar results would not be obtained with other subject matter.

2. The participants were limited to faculty.

3. Twenty-six faculty is a relatively small sample.

4. While the results of the original Delphi goals study were used in institutional planning, most of the faculty included in this follow-up study did not participate in this process of planning, and therefore have not come in contact with the results of the Delphi study during the year prior to this follow-up study. Different results might have been obtained if the faculty were using the results of the Delphi study or if the administrators who were responsible for the planning had been included in this study.

5. If the follow-up study had been performed after a shorter time interval(e.g.six months), different results may have been obtained.

6. The study was conducted at one institution. Institutions with different characteristics might obtain different results.

While this study does not provide any definitive answer to the original question of the permanency of response changes as a result of the Delphi technique, it does indicate that this is likely to be a fertile area for additional research. Certain variables have been identified which should be considered in such studies.

References

Judd, R.C. "Forecasting to Consensus Gathering, Delphi Grows Up to College Needs." College and University Business, July, 1972, pp. 35-37.

Uhl, N.P. Identifying Institutional Goals: Encouraging Convergence of Opinion Through the Delphi Technique. National Laboratory for Higher Education, 1971.